



## INTERNATIONAL TRADE COMMISSION

[Investigation No. 337-TA-1271]

**Certain Silicon Photovoltaic Cells and Modules with Nanostructures, and Products**

**Containing the Same; Notice of Commission Determination to Review in Part and, on**

**Review, to Affirm a Final Initial Determination Finding No Violation; Termination of the Investigation**

**AGENCY:** U.S. International Trade Commission.

**ACTION:** Notice.

**SUMMARY:** Notice is hereby given that, on September 1, 2022, the presiding chief administrative law judge (“CALJ”) issued a combined final initial determination (“ID”) on violation and recommended determination (“RD”) on remedy and bonding. The final ID finds no violation of section 337 in the above-captioned investigation. The Commission has determined to review the final ID in part and, on review, affirm the final ID’s finding of no violation. The investigation is terminated.

**FOR FURTHER INFORMATION CONTACT:** Richard P. Hadorn, Esq., Office of the General Counsel, U.S. International Trade Commission, 500 E Street, S.W., Washington, D.C. 20436, telephone (202) 205-3179. Copies of non-confidential documents filed in connection with this investigation may be viewed on the Commission’s electronic docket (EDIS) at <https://edis.usitc.gov>. For help accessing EDIS, please email [EDIS3Help@usitc.gov](mailto:EDIS3Help@usitc.gov). General information concerning the Commission may also be obtained by accessing its Internet server at <https://www.usitc.gov>. Hearing-impaired persons are advised that information on this matter can be obtained by contacting the Commission’s TDD terminal, telephone (202) 205-1810.

**SUPPLEMENTARY INFORMATION:** The Commission instituted this investigation on July 20, 2021, based on a complaint filed by Advanced Silicon Group Technologies, LLC (“ASGT”) of Lowell, Massachusetts. 86 FR 38356 (July 20, 2021). The complaint, as supplemented,

alleges violations of section 337 of the Tariff Act of 1930, as amended, 19 U.S.C. 1337, based on the importation into the United States, the sale for importation, and the sale within the United States after importation of certain silicon photovoltaic cells and modules with nanostructures, and products containing the same by reason of infringement of certain claims of U.S. Patent Nos. 10,269,995 (“the ’995 patent”); 8,450,599 (“the ’599 patent”); 8,852,981 (“the ’981 patent”); 9,601,640 (“the ’640 patent”); 9,768,331 (“the ’331 patent”); and 10,692,971 (“the ’971 patent”). *Id.* at 38357. The complaint further alleges that a domestic industry exists or is in the process of being established. *Id.* The notice of investigation named 28 respondents, including: Canadian Solar International Limited of Hong Kong, China; Canadian Solar Manufacturing (Thailand) Co. Ltd. of Chon Buri, Thailand; Canadian Solar Manufacturing Vietnam Co. Ltd. of Hai Phong City, Vietnam; Canadian Solar (USA) Inc. of Walnut Creek, California; and Recurrent Energy SH Proco LLC of Walnut Creek, California (“Canadian Solar Respondents”); Hanwha Solutions Corporation of Seoul, Republic of Korea; Hanwha Q Cell EPC USA LLC of Irvine, California; Hanwha Q Cells America Inc. of Irvine, California; Hanwha Q Cells USA Inc. of Dalton, Georgia; and Hanwha Q Cells Malaysia Sdn. Bhd of Selangor, Malaysia (“Hanwha Respondents”); Ningbo Boway Alloy Material Co., Ltd. of Zhejiang Province, China; Boviet Solar Technology Co., Ltd. of Bac Giang Province, Vietnam; Boviet Renewable Power, LLC of San Jose, California; and Boviet Solar USA Ltd. of San Jose, California (“Boviet Respondents”); and Canadian Solar Inc. of Ontario, Canada; Canadian Solar Manufacturing (Changshu) Co. Inc. of Jiangsu, China; Canadian Solar Manufacturing (Luoyang) Inc. of Henan, China; Canadian Solar Solutions, Inc. of Ontario, Canada; Canadian Solar Construction (USA) LLC of Walnut Creek, California; Recurrent Energy Group Inc. of San Francisco, California; Recurrent Energy, LLC of Walnut Creek, California; Hanwha Q Cells GmbH of Bitterfeld-Wolfen, Germany; Hanwha Q Cells (Qidong) Co., Ltd. of Jiangsu, China; Hanwha Energy USA Holdings Corp. (d/b/a 174 Power Global Corporation) of Irvine, California; Hanwha Q Cells USA Corp. of Irvine, California; HQC Rock River Solar Holdings LLC of Irvine, California; HQC Rock River

Solar Power Generation Station, LLC of Beloit, Wisconsin; and Hanwha Q CELLS & Advanced Materials Corp. of Seoul, Republic of Korea (“Terminated Respondents”). *Id.* The Office of Unfair Import Investigations (“OUII”) is also named as a party. *Id.*

On February 22, 2022, the Commission determined to terminate the investigation as to the ’971 patent (Order No. 7) and the Terminated Respondents (Order No. 8) based on ASGT’s withdrawal of the allegations in the complaint as to that patent and those respondents. Order Nos. 7 and 8 (Feb. 1, 2022), *unreviewed by* Comm’n Notice (Feb. 22, 2022). On June 21, 2022, the Commission determined to terminate the investigation as to the ’995 patent, asserted claims 17 and 25 of the ’599 patent, asserted claims 1, 2, and 26 of the ’981 patent, asserted claims 14 and 16-18 of the ’640 patent, and asserted claims 2 and 10 of the ’331 patent based on ASGT’s withdrawal of the allegations in the complaint as to that patent and those claims. Order No. 12 (May 31, 2022), *unreviewed by* Comm’n Notice (June 21, 2022).

On September 1, 2022, the CALJ issued the subject final ID on violation and RD on remedy and bond. The ID finds that no violation of section 337 has occurred as to the Canadian Solar Respondents, Hanwha Respondents, and Boviet Respondents with respect to the claims of the four remaining asserted patents—*i.e.*, the ’599, ’981, ’640, and ’331 patents. Specifically, the ID finds: (1) no infringement as to any of the remaining asserted patents; (2) that claim 27 of the ’981 patent is invalid as anticipated by U.S. Patent Application Publication No. US2011/0140085 (“Homyk 2011”); (3) that claim 1 of the ’331 patent is invalid as obvious over (i) the combination of the printed publications titled “Silicon Nanowire-Array-Textured Solar Cells for Photovoltaic Application” (“Chen 2010”) and “Crystalline Silicon Solar Cells and Modules” (“Tobias 2003”), as well as (ii) the combination of U.S. Patent Application Publication No. US2013/0340824 (“Oh 2013”) and Tobias 2003; (4) that ASGT has not satisfied the technical prong of the domestic industry requirement as to any of the remaining asserted patents; (5) that ASGT has satisfied the economic prong of the domestic industry requirement as to the remaining asserted patents; and (6) that ASGT’s assertion of violation as to the ’331 patent is not

barred by inequitable conduct.

The RD recommends that, should the Commission determine that violations of section 337 occurred, the Commission should: (i) issue a limited exclusion order against the remaining respondents' infringing products; (ii) issue a cease and desist order against the Canadian Solar Respondents, but not against the Hanwha Respondents or Boviet Respondents; and (iii) enter no bond for any importations of infringing products during the period of Presidential review.

On September 19, 2022, ASGT filed a petition for review of certain findings in the final ID concerning infringement by only the Canadian Solar Respondents as to the '981 and '640 patents, the finding that claim 27 of the '981 patent is invalid as anticipated by Homyk 2011, satisfaction of the technical prong of the domestic industry requirement as to the '981 and '640 patents; and contingently, whether ASGT has satisfied the economic prong of the domestic industry requirement based on an industry in the process of being established. On September 27, 2022, the Canadian Solar Respondents and OUII each filed a response to ASGT's petition.

On October 5, 2022, ASGT filed a submission on the public interest pursuant to Commission Rule 210.50(a)(4) (19 CFR 210.50(a)(4)). The Commission did not receive any public interest submissions from the remaining respondents. The Commission also did not receive any submissions on the public interest from members of the public in response to the Commission's *Federal Register* notice. 87 FR 55852-53 (Sept. 12, 2022).

Having reviewed the record in this investigation, including the final ID, ASGT's petition, and the responses thereto, the Commission has determined to review the final ID in part. Specifically, the Commission has determined to review the ID's finding that ASGT has satisfied the economic prong of the domestic industry requirement as to the remaining asserted patents. On review, the Commission has determined to take no position on that issue.

Further, the Commission has determined to review, and on review, to correct the following typographical/clerical errors in the final ID: (1) in the twenty-first line of page 123, "does not remove (or break)" is replaced with "removes (or breaks)"; (2) in the fifth line of page

161 and the twelfth line of page 174, “Tobias 2013” is replaced with “Tobias 2003”; (3) the last sentence of the first full paragraph on page 174 is replaced with “In addition, Dr. Lebby testified that Oh 2013 disclosed screen printing on nanowires and, moreover, that it would not have been difficult for a person of ordinary skill in the art to screen print a comb-like pattern onto silicon nanostructures. *See* RX-0001C (Lebby) at Q/A 318-25.”; (4) in the eighth line of page 175, “Chen 2010 and Tobias” is replaced with “Oh 2013 and Tobias 2003”; and (5) the following paragraph is added between the first and second full paragraphs on page 8: “Boviet Renewable Power, LLC (‘Boviet Renewable’) is a corporation existing under the laws of the State of Delaware and a subsidiary of Ningbo Boway having a principal place of business in San Jose, California. *See* Complaint, ¶ 34; Boviet Response to Complaint, ¶ 34.”

In addition, the Commission has determined to review, and on review, to strike the discussion and finding at Section II.A on page 15 of the final ID that the Commission has “subject matter jurisdiction” over this investigation. The concept of “subject matter jurisdiction” does not apply to administrative agencies. *City of Arlington, Tex. v. FCC*, 569 U.S. 290, 297-98 (2013).

Lastly, the Commission has determined to review, and on review, to affirm with supplemental reasoning the final ID’s finding that Homyk 2011 anticipates claim 27 of the ’981 patent. Specifically, ASGT’s argument in its post-hearing brief (and petition for review) that Homyk 2011 does not teach the “a portion of the surface” limitation of claim 27 is waived because ASGT failed to raise the argument in its pre-hearing brief. *See* Order No. 2 at 11-12 (July 16, 2021) (Ground Rule 7c (deeming a contention abandoned or withdrawn if it is not set forth in detail in a party’s pre-hearing brief)); Complainant’s Post-Hearing Brief (Apr. 26, 2022) at 154-55; Complainant’s Petition for Commission Review of Initial Determination (Sept. 19, 2022) at 35-36.

The Commission has determined not to review the remaining findings in the final ID. Accordingly, the Commission has determined to affirm the final ID’s finding of no violation of

section 337. The investigation is terminated.

The Commission vote for this determination took place on February 27, 2023.

The authority for the Commission's determination is contained in section 337 of the Tariff Act of 1930, as amended (19 U.S.C. 1337), and in Part 210 of the Commission's Rules of Practice and Procedure (19 CFR Part 210).

By order of the Commission.

Issued: February 27, 2023.

**Katherine Hiner,**  
*Supervisory Attorney.*

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